

A CHECKLIST OF SPECIES OF *HELIOTHIS* OCHSENHEIMER  
(LEPIDOPTERA: NOCTUIDAE)

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*Abstract.*—This cross-indexed list of 154 species-group names in *Heliothis* Ochsenheimer (Lepidoptera: Noctuidae) includes the original combination and reference of each name, distribution and indications of references containing illustrations of valid species and subspecies. *Heliothis neckerensis* n. n. is proposed for *Helicoverpa pallida* Hardwick, secondary homonym of *Heliothis pallida* (Butler). Twelve new combinations are noted.

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This cross-indexed alphabetical checklist of the species-group names of the genus *Heliothis* Ochsenheimer has been developed from the literature and does not reflect a personal opinion as to the placement, validity or status of the entities included except as noted. The list has been prepared primarily for use by workers concerned with studies of the economically important species of the genus, especially with biological control of such species.

Hardwick (1965a:10; 1970:30) has been followed in the inclusion in *Heliothis* of certain species formerly in *Timora* Walker, 1856 and *Canthylidia* Butler, 1886. Other species that have been included in those genera and other related genera remain to be studied to determine whether they are congeneric. Undoubtedly a supplementary list will need to be prepared at some future date.

Hardwick (1970:18) feels that if the corn earworm group (*Helicoverpa* Hardwick, 1965) is included in *Heliothis*, the species of *Schinia* Hübner, 1818 should also be transferred to *Heliothis*. That premise does not hold if the characters on which his classification was based are given a different weight or significance. Accordingly, *Helicoverpa* Hardwick is treated as a synonym of *Heliothis*, and the species of *Schinia* have not been included in this list.

A few species have been either deliberately excluded or tentatively included. *Noctua scutosa* Denis & Schiffermüller, 1775, a species commonly placed in *Heliothis*, but now standing in *Protoschinia* Hardwick, 1970 has not been included. Hardwick believes that it is an intermediate species between *Heliothis* and *Schinia*. Conversely, one included species, *Chloridea chilensis* Hampson, 1903 may not belong in the genus. It has been placed in the genus *Schinia* by Hardwick (1966:870), but I am not convinced his arguments are valid. *Poaphila?* *turbata* Walker, 1858 and its junior synonym, *Perigea albidentina* Walker, 1865 have usually been placed in *Heliothis*, but the former has been treated in recent years as an unrecognized or "lost" species. Mr. Alan Hayes of the British Museum (Natural History)

has examined and has sent colored photographic slides of the types of those two names for my examination. He is of the opinion that these are older names for the species described by Grote, 1875 as *Heliothis lupatus*. I agree with that opinion and the names are so treated in this list. *Chloridea distincta* Schaus, *Aspila tergemina* Felder and Rogenhofer and *Chloridea molochitina* Berg with its synonym, *Thyreion olivofusa* Dognin, have usually been placed as junior synonyms of *Heliothis virescens* (F.) by most workers. I am convinced they are good species and have treated them as such in the checklist.

The generic name, *Heliothis*, is masculine in gender, but has usually been treated as feminine. In addition, names proposed in feminine genera have been transferred to *Heliothis* unchanged. All necessary changes to masculine endings have been made in this paper, and the incorrect feminine spellings are shown in parentheses for convenience of workers wishing to conduct bibliographic searches.

In the past some species of the corn earworm complex have been misidentified as *Heliothis armigera* Hübner or *Heliothis obsoleta* (F.). These numerous misidentifications have not been included in this list as they can be found in the extensive bibliography prepared by Hardwick (1965a:133-208).

The numbers in parentheses and brackets following each species listed refer to the numbered list of references. The numbers in parentheses indicate references where illustrations of adults may be found; those in brackets refer to illustrations of genitalia, male and/or female.

### Genus *Heliothis* Ochsenheimer

*Heliothis* Ochsenheimer, 1816. Schmett. Eur. 4: 91.

Type-species: *Phalaena dipsacea* Linnaeus, 1767. Syst. Nat. (Edn. 12), 1:856 (= *Phalaena viriplaca* Hufnagel, 1766. Berlin. Mag. 3(4):406) by subsequent designation by Samouelle, 1819. Entomologist's useful Compendium. P. 252.

*Chloridea* Duncan [& Westwood], 1841. In Jardine, Naturalist's Library (Edn. 1). 33(Ent. 7):198.

Type-species: *Phalaena rhexiae* J. E. Smith, 1797. In Smith & Abbott, Nat. Hist. Rarer Lepid. Insects Georgia. P. 199 (= *Noctua virescens* Fabricius, [1777]. Genera Insect. P. 282) by monotypy.

*Aspila* Guenée, 1852. In Boisduval & Guenée, Hist. Nat. Insectes. Sp. Gén. Lépid. 6(Noct. 2):174.

Type-species: *Noctua virescens* Fabricius, [1777]. Genera Insect. P. 282 by subsequent designation by Hampson, 1903. Cat. Lepid. Phalaenae Br. Mus. 4:34.

*Timora* Walker, 1856. List of specimens of lepidopterous insects in the collection of the British Museum. Pt. 9, pp. 69, 132.

Type-species: *Nonagria senegalensis* Guenée, 1852. In Boisduval & Guenée, Hist. Nat. Insectes. Sp. Gén. Lépid. 5(Noct. 1):110 by monotypy.

*Heliocheilus* Grote, 1865. Proc. Entomol. Soc. Phila. 4:328.

Type-species: *Heliocheilus paradoxus* Grote, 1865. *Ibidem.* 4:329 by monotypy.

*Rhodosea* Grote, 1883. Can. Entomol. 15:4.

Type-species: *Rhodosea julia* Grote, 1883. *Ibidem.* 15:5 by monotypy.

*Dysocnemis* Grote, 1883. Trans. Amer. Entomol. Soc. 10:263.

Type-species: *Melicleptria belladonna* Hy. Edwards, 1881. Papilio. 1:20 by original designation.

*Canthylidia* Butler, 1886. Trans. R. Entomol. Soc. Lond. 1886, p. 406.

Type-species: *Canthylidia pallida* Butler, 1886. *Ibidem.* 1886, p. 406 (= *Leucania invaria* Walker, 1856. List of specimens of lepidoterous insects in the collection of the British Museum. Pt. 9, p. 111) by monotypy.

*Helicoverpa* Hardwick, 1965. Mem. Entomol. Soc. Can. No. 40, p. 9.

Type-species: *Noctua armigera* Hübner, [1803–1808]. Samml. Eur. Schmett. 4: pl. 79, fig. 370 by original designation.

*acesias* Felder & Rogenhofer—Jr. syn. of **phloxiphagus**.

*adauctus* (adaucta) Butler—Jr. syn. of **viriplaca**.

**afer** (afra) (Hardwick)—Subsp. of **assulta**. Africa.

*albidus* (albida) Cockayne—Ab. of **maritimus warnecki**.

*albidus* (albida) Fuchs—Form of **viriplaca**.

*albidentina* (Walker)—Jr. syn. of **turbatus**.

**albivenatus** (albivenata) (Hampson). Somaliland (8, 11).

*Chloridea albivenata* Hampson, 1916. Proc. Zool. Soc. Lond. 1916, p. 103, pl. 1, fig. 3.

*alpheia* (Cramer)—Jr. syn. of **peltiger**.

*anartoides* (Strand)—Jr. syn. of **belladona**.

**angarensis** (Draudt)—Subsp. of **viriplaca**. China.

*aresca* (Turner)—Jr. syn. of **rubescens**.

**armiger** (armigera) **armiger** (Hübner). Eastern Hemisphere (3, 9, 12, 21, 22, 25, 26) [3, 12, 15, 25].

*Noctua armigera* Hübner [1803–1808]. Samml. Eur. Schmett. 4: pl. 79, fig. 370.

- Noctua barbara* Fabricius, 1794. Entomol. Syst. 3, 2:111. Hardwick (1965b, ref. 13) considered this a senior synonym, but applied to International Commission on Zoological Nomenclature for rejection as a *nomen oblitum*.
- Heliothis pulverosa* Walker, 1857. List of specimens of lepidopterous insects in the collection of the British Museum. Pt. 11, p. 688.
- Heliothis uniformis* Wallengren, 1860. Weiner Entomol. Monatschr. 4:171.
- Heliothis obsoleta* Auctorum *nec* (F.) (in part). Misidentifications.
- Chloridea obsoleta ab. rufa* Warren, 1911. In Seitz, Die Gross-Schmetterlinge der Erde. 3:246.
- Heliothis armigera form fusca* Cockerell, 1889. Entomologist. 22:4.
- armiger commoni** (Hardwick) **n. comb.** Canton Island.
- Helicoverpa armigera commoni* Hardwick, 1965. Mem. Entomol. Soc. Can. No. 40, p. 101, figs. 116–117.
- armiger confertus** (*conferta*) Walker. Indonesia, Australia & Oceania.
- Heliothis conferta* Walker, 1857. List of specimens of lepidopterous insects in the collection of the British Museum. Pt. 11, p. 690.
- assulta assulta** Guenée. Asia, Africa, Australia & Oceania (3, 8, 9, 12, 22, 27) [3, 12].
- Heliothis assulta* Guenée, 1852. In Boisduval & Guenée, Hist. Nat. Insectes. Sp. Gén. Lépid. 6(Noct. 2):178.
- Heliothis separata* Walker, 1857. List of specimens of lepidopterous insects in the collection of the British Museum. Pt. 11, p. 691.
- Heliothis succinea* Moore, 1881. Proc. Zool. Soc. Lond. 1881, p. 362.
- Heliothis temperata* Walker, 1857. List of the specimens of lepidopterous insects in the collection of the British Museum. Pt. 11, p. 689.
- assulta afer** (*afra*) (Hardwick) **n. comb.** Africa.
- Helicoverpa assulta afra* Hardwick, 1965. Mem. Entomol. Soc. Can. No. 40, p. 123, fig. 131.
- atacamae** (Hardwick) **n. comb.** Chile & Perú (12) [12].
- Helicoverpa atacamae* Hardwick, 1965. Mem. Entomol. Soc. Can. No. 40, p. 81, figs. 106–107.
- aurantiacus* (*aurantiaca*) (Strand)—Ab. of **peltiger**.
- barbarus* (*barbara*) (F.)—Jr. syn. of **peltiger** vide Hampson, syn. of **armiger** vide Hardwick.
- belladonna** (Hy. Edwards). Western USA (9, 16) [15].
- Melicleptria belladonna* Hy. Edwards, 1881. Papilio. 1:20.
- Dysocnemis anartoides* Strand, 1914. Arch. Naturgeseh. 80A, 2:161.
- borealis** (Hampson). Eastern Canada (9).
- Dysocnemis borealis* Hampson, 1903. Cat. Lepid. Phalaenae Br. Mus. 4:24, pl. 55, fig. 6.
- bractea** (Hardwick) **n. comb.** Paraguay, Argentina & Perú (12) [12].

- Helicoverpa bracteae* Hardwick, 1965. Mem. Entomol. Soc. Can. No. 40, p. 74, figs. 27–29, 102.
- bulgaricus** (*bulgarica*) (Draudt)—Subsp. of **maritimus**. SE Europe.
- caesius** (*caesia*) (Warren). Queensland (27).
- Chloridea caesia* Warren, 1926. In Seitz, Die Gross-Schmetterlinge der Erde. 11:308, pl. 27, row i.
- canariensis* (Warren)—Ab. of **viriplaca**.
- centralasiae** (Draudt)—Subsp. of **maritimus**. Asia.
- charmione* (Stoll)—Jr. syn. of **peltiger**.
- chilensis** (Hampson). Chile (4, 9, 14) [14]. In *Schinia* vide Hardwick, 1966.
- Chloridea chilensis* Hampson, 1903. Cat. Lepid. Phalaenae Br. Mus. 4:48, pl. 55, fig. 24.
- clarissimus* (*clarissima*) (Turati)—Form of **peltiger**.
- commoni** (Hardwick)—Subsp. of **armiger**. Canton Island.
- condolens* Schawerda—Ab. of **peltiger**.
- confertus** (*conferta*) Walker—Subsp. of **armiger**. Indonesia, Australia & Oceania.
- confusus** (*confusa*) (Hardwick) **n. comb.** Hawaii (12) [12].
- Helicoverpa confusa* Hardwick, 1965. Mem. Entomol. Soc. Can. No. 40, p. 116, figs. 123–124.
- conifer** (*conifera*) (Hampson). Transvaal.
- Chloridea conifera* Hampson, 1913. Ann. Mag. Nat. Hist. (8). 12:580.
- cystiphorus** (*cystiphora*) (Wallengren). Panamá & Galapagos Islands (4).
- Anthoecia cystiphora* Wallengren, 1860. Wiener Entomol. Monatschr. 4:172 ♂.
- Anthoecia inflata* Wallengren, 1860. *Ibidem*. 4:172 ♂.
- Anthoecia onca* Wallengren, 1860. *Ibidem*. 4:172 ♀.
- dejeani** Oberthür. China (18, 26).
- Heliothis dejeani* Oberthür, 1893. Et. Entomol. 18:44, pl. 3, fig 40.
- desertus* (*deserta*) (Sohn-Rethel)—Var. of **nubiger**.
- designatus** (*designata*) (Brandt). Iran (2).
- Heliocheilus designata* Brandt, 1947. Mitt. Münchn. Entomol. Ges. 31: 853.
- dipsaceus* (*dipsacea*) (L.)—Jr. syn. of **viriplaca**.
- distinctus** (*distincta*) (Schaus). Perú (4).
- Chloridea distincta* Schaus, 1898. J. N.Y. Entomol. Soc. 6:117.
- errans* Walker—Jr. syn. of **scutuliger**.
- ferrugineus* (*ferruginea*) Spuler—Ab. of **maritimus**.
- fervens** Butler. Japan & China (9, 22).
- Heliothis fervens* Butler, 1881. Trans. R. Entomol. Soc. Lond. 1881, p. 186.
- Heliothis foveolatus* Staudinger, 1888. Stett. Entomol. Zeit. p. 263.



- Heliocheilus fervens* ab. *macularis* Warren, 1911. In Seitz, Die Gross-Schmetterlinge der Erde. 3:245.
- fimbria* (Williams)—Jr. syn. of **proruptus**.
- flavescens** (Janse). Natal.
- Chloridea flavescens* Janse, 1917. Ann. Durban Mus. 1:472.
- flaviger** (flavigera) **flaviger** (Hampson). Africa (25) [25].
- Chloridea flavigera* Hampson, 1907. Ann. Mag. Nat. Hist. (7). 19:242.
- flaviger insularis** Viette. Madagascar.
- Heliothis flavigera insularis* Viette, 1967. Faune de Madagascar. 20(2):772, figs. 603, 605, 611.
- fletcheri** (Hardwick) **n. comb.** Western Africa (12) [12].
- Helicoverpa fletcheri* Hardwick, 1965. Mem. Entomol. Soc. Can. No. 40, p. 129, figs. 132-133.
- florentinus* (florentina) (Esper)—Jr. syn. of **peltiger**.
- foveolatus* Staudinger—Jr. syn. of **fervens**.
- fumatus* (fumata) (Lucas)—Jr. syn. of **invariatus**.
- fuscimacula** (Janse). Natal.
- Chloridea fuscimacula* Janse, 1917. Ann. Durban Mus. 1:469.
- fuscus* (fusca) Cockerell—Form of **armiger**.
- gelotopoeus** (gelotopoeon) (Dyar). Southern South America (4, 12) [12, 23].
- Thyreion gelotopoeon* Dyar, 1921. Insec. Inscit. Menst. 9:60.
- ?*Thyreion giacomelli* Koehler, 1939. Physis. 17:451.
- ?*Thyreion lizeri* Koehler, 1939. Physis. 17:450.
- giacomelli* (Koehler)—Jr. syn. of **gelotopoeus**.
- grandis* (Druce)—Jr. syn. of **julia**.
- guidellii** Costantini. Italy.
- Heliothis guidellii* Costantini, 1922. Neue Beiträge Syst. Insektenk. 2:99.
- hawaiiensis** Quaintance & Brues. Hawaii (12, 28, 29) [12, 28, 29].
- Heliothis obsoleta* var. *hawaiiensis* Quaintance & Brues, 1905. USDA, Bur. Entomol. Bull. 50:12.
- Chloridea obsoleta signata* Warren, 1926. In Seitz, Die Gross-Schmetterlinge der Erde. 11:308.
- Chloridea armigera* ab. *hawaiiensis* (Strand), 1916. Arch. Naturgesch. 81(A), 12:143. Preoccupied.
- hawaiiensis* (Strand)—Jr. syn. of **hawaiiensis** Quaintance & Brues. Preoccupied.
- helenae** (Hardwick) **n. comb.** St. Helena Island (12) [12].
- Helicoverpa helenae* Hardwick, 1965. Mem. Entomol. Soc. Can. No. 40, p. 106, figs. 118-119.
- hungaricus* (hungarica) (Kovács)—Jr. syn. of **maritimus bulgaricus**.
- hyalostictus** (hyalosticta) Hampson. India & Burma (9, 27).
- Heliothis hyalosticta* Hampson, 1896. Moths of India. 4:507.

- hyperchroa* Turner—Jr. syn. of **rubrescens**.  
*hyperfuscus* (*hyperfusca*) (Strand)—Ab. of **paradoxus**.  
*inflatus* (*inflata*) (Wallengren)—Jr. syn. of **cystiphorus**.  
**insularis** Viette—Subsp. of **flaviger**. Madagascar.  
*insulatus* (*insulata*) (Navás)—Var. of **peltiger**.  
*intensivus* (*intensiva*) (Warren)—Ab. of **ononis**.  
*interjacens* Grote—Jr. syn. of **phloxiphagus**.  
**invarius** (*invaria*) **invarius** (Walker). Queensland (9) [15].  
*Leucania invaria* Walker, 1856. List of the specimens of lepidopterous insects in the collection of the British Museum. Pt. 9, p. 111.  
*Canthylidia pallida* Butler, 1886. Trans. R. Entomol. Soc. Lond. 1886, p. 406, pl. 9, fig. 9.  
*Leucania fumata* Lucas, 1889. Proc. Linn. Soc. N. S. Wales. (2). 4:1098.  
**invarius pallescens** (Warren). West Australia.  
*Canthylidia invaria pallescens* Warren, 1926. In Seitz, Die Gross-Schmetterlinge der Erde. 11:312, pl. 28, row a.  
**jefferyi** (Janse). Transvaal.  
*Chloridea jefferyi* Janse, 1917. Ann. Durban Mus. 1:470.  
**julia** (Grote). Western USA & México (9, 16) [15].  
*Rhodosea julia* Grote, 1883. Can. Entomol. 15:5.  
*Adisura grandis* Druce, 1890. Proc. Zool. Soc. Lond. 1890, p. 516.  
*lizeri* (Koehler)—Jr. syn. of **gelotopoeus**.  
*lugubris* Klemensiewicz—Ab. of **ononis**.  
*lupatus* (*lupata*) Grote—Jr. syn. of **turbatus**.  
*luteitinctus* (*luteitincta*) Grote—Form of **phloxiphagus**.  
*macularis* (Warren)—Ab. of **fervens**.  
**maritimus** (*maritima*) **maritimus** Graslin. Palearctic (7) [7].  
*Heliothis maritima* Graslin, 1855. Ann. Soc. Entomol. Fr. (3). 3:68, pl. 7.  
*Heliothis spergulariae* Lederer, 1857. Noct. Eur. p. 230.  
*Heliothis maritima* ab. *ferruginea* Spuler, 1908. Schmett. Eur. 1:281.  
*Heliothis maritima* form *obscura* Lempke, 1941. Tijdschr. Entomol. 84: 337.  
**maritimus bulgaricus** (Draudt). Southeast Europe.  
*Chloridea maritima bulgarica* Draudt, 1938. Entomol. Rdsch. 55:307 and 1938. Rev. Franç. Lepidopt. 9:90.  
*Chloridea maritima hungarica* Kovács, 1950. Folia Entomol. Hung. (N. S.). 3:68.  
**maritimus centralasiae** (Draudt). Asia.  
*Chloridea maritima centralasiae* Draudt, 1938. Entomol. Rdsch. 55:308 and 1938. Rev. Franç. Lepidopt. 9:90.  
**maritimus warneckei** (Boursin). Europe.  
*Chloridea maritima warneckei* Boursin, 1963. Linn. Belg. 2:125 and 1964. Bull. Mens. Soc. Linn. Lyon. 33:240.

- Heliothis maritima septentrionalis* Hoffmeyer, 1938. Flora og Fauna. 44:6. Preoccupied.
- Heliothis maritima septentrionalis* ab. *albida* Cockayne, 1951. Entomol. Rec. 63:160.
- marmada* (Swinhoe)—Jr. syn. of **punctiger**.
- mekranus** (mekrana) (Brandt). Iran (2).
- Heliocheilus mekrana* Brandt, 1947. Mitt. Münchn. Entomol. Ges. 31:852.
- metachriseus** (metachrisea) (Hampson). Madagascar (25) [25].
- Chloridea metachrisea* Hampson, 1903. Cat. Lepid. Phalaenae Br. Mus. 4: 42, pl. 55, fig. 18.
- minutus** (minuta) (Hardwick) **n. comb.** Lisianski Island (12) [12].
- Helicoverpa minuta* Hardwick, 1965. Mem. Entomol. Soc. Can. No. 40, p. 118, figs. 125-126.
- molochitinus** (molochitina) (Berg). Southern South America.
- Chloridea molochitina* Berg, 1882. Ann. Soc. Argentina. 14:282.
- Thyreion olivofusa* Dognin, 1907. Ann. Soc. Entomol. Belg. 51:230.
- nana** (Hampson). Tibet (10).
- Chloridea nana* Hampson, 1906. Proc. Zool. Soc. Lond. 1906, p. 487.
- neckerensis** **n. n.** for *Helicoverpa pallida* Hardwick. Necker Island (12) [12].
- Helicoverpa pallida* Hardwick, 1965. Mem. Entomol. Soc. Can. No. 40, p. 89, fig. 111. Preoccupied by *Heliothis pallida* (Butler), 1886.
- neckerensis nihoaensis** (Hardwick) **n. comb.** Nihoa Island (14).
- Helicoverpa pallida nihoaensis* Hardwick, 1966. Can. Entomol. 98(8): 867, fig. 2.
- nihoaensis** (Hardwick)—Subsp. of **neckerensis**. Nihoa Island.
- nubiger** (nubigera) Herrich-Schäffer. Palearctic (7, 26).
- Heliothis nubigera* Herrich-Schäffer, 1851. Syst. Bearbeit. Schmett. Eur. 2:366.
- Heliothis perigeoides* Moore, 1881. Proc. Zool. Soc. Lond. 1881, p. 361.
- Chloridea nubigera* var. *deserta* Sohn-Rethel, 1929. Iris. 43:14.
- obscurus** (obscura) Lempke—Form of **maritimus**.
- obscurus** (obscura) (Lempke)—Form of **peltiger**.
- obsoletus** (obsoleta) (F.)—Syn. of **zea**.
- ochraceus** (ochracea) Cockerell—Form of **zea**.
- oenotryx** (Boursin)—Subsp. of **viriplaca**. Spain.
- olivarius** (olivaria) Graeser. Amurland.
- Heliothis olivaria* Graeser, 1888. Berlinger Entomol. Ztschr. 32:365.
- olivofusus** (olivofusa) (Dognin)—Jr. syn. of **molochitinus**.
- omicronatus** (omicronata) Richardson—Ab. of **peltiger**.
- onca** (Wallengren)—Jr. syn. of **cystiphorus**.
- ononidis** Guenée—Jr. syn. of **ononis**.
- ononis** (Denis & Schiffermüller). Holarctic (4, 7, 18, 21, 26).



- Noctua ononis* Denis & Schiffermüller, 1775. Ankündigung eines systematischen Werkes von den Schmetterlingen der Weinergegend . . . Wien. P. 89.
- Chloridea ononis* ab. *intensiva* Warren, 1911. In Seitz, Die Gross-Schmetterlinge der Erde. 3:245, pl. 50, row k.
- Melicleptria septentrionalis* Hy. Edwards, 1884. Papilio. 4:45.
- Heliothis ononis* ab. *lugubris* Klemensiewicz, 1912. Spraw. Kom. Fizyogr. Krakow. 46:14.
- Heliothis ononidis* Guenée, 1852. In Boisduval & Guenée, Hist. Nat. Insectes. Sp. Gén. Lépid. 6(Noct. 2):182. An invalid emendation of *ononis*.
- oregonicus** (*oregonica*) (Hy. Edwards). Western USA (1, 9, 16).
- Melicleptria oregonica* Hy. Edwards, 1875. Proc. Calif. Acad. Sci. 6:135.
- pacificus** (*pacifica*) (Hardwick) **n. comb.** Jarvis Island (12) [12].
- Helicoverpa pacifica* Hardwick, 1965. Mem. Entomol. Soc. Can. No. 40, p. 119, fig. 128.
- pallescens** (Warren)—Subsp. of **invarius**. West Australia.
- pallidus* (*pallida*) (Butler)—Jr. syn. of **invarius**.
- pallidus* (*pallida*) (Hardwick)—Syn. of **neckerensis**. Preoccupied.
- pallidus* (*pallida*) (Lempke)—Form of **viriplaca**.
- pallidus* (*pallida*) Cockerell—Form of **peltiger**.
- paradoxus** (*paradoxa*) (Grote). USA (4, 9, 16, 17) [15].
- Heliocheilus paradoxus* Grote, 1865. Proc. Entomol. Soc. Phila. 4:329, pl. 2, figs. 3-5.
- Chloridea paradoxa* ab. *hyperfusca* Strand, 1916. Arch. Naturgesch. 81(A), 12:143.
- pauliana* Hardwick—Jr. syn. of **pauliani**.
- pauliani** Viette. Amsterdam Island & Indian Ocean (24).
- Heliothis pauliani* Viette, 1959. Bull. Soc. Entomol. Fr. 64(2):27.
- Heliothis pauliana* [sic], Hardwick, 1966. Can. Entomol. 98(8):869.
- Lapsus pro pauliani*.
- peltiger** (*peltigera*) (Denis & Schiffermüller). Palearctic (7, 21, 26).
- Noctua peltigera* Denis & Schiffermüller, 1775. Ankündigung eines systematischen Werkes von den Schmetterlingen der Wienergend . . . Wien. P. 89.
- Phal.* [*aena*] *Bomb.* [*yx*] *alpheia* Cramer, 1780. Papillons Exotiques . . . 3:99, 173 [Index], pl. 250, fig. F.
- Phal.* [*aena*] *Noct.* [*ua*] *charmione* Stoll, 1790. Supplément à L'Ouvrage, intitulé les Papillons Exotiques . . . Pp. 162, 182 [Index], pl. 36, fig. 10.
- Noctua florentina* Esper, 1788. Die Schmetterlinge in Abbildungen nach der Natur. Erlangen. 4: pl. 135, fig. 2.

- Phalaena straminea* Donovan, 1793. Brit. Insects. 2: pl. 61.  
*Noctua barbara* Fabricius, 1794. Entomol. Syst. (3). 2:334.  
*Heliothis peltigera* [f.] *pallida* Cockerell, 1889. Entomologist. 22:4.  
*Heliothis peltigera* ab. *condolens* Schawerda, 1914. Verh. Zool.-Bot. Ges. Wien. 64:365.  
*Chloridea peltigera* ab. *aurantiaca* Strand, 1915. Arch. Naturgesch. 81A, 12:142.  
*Chloridea peltigera* var. *insulata* Navás, 1924. Publ. Junta Cièn. Nat. 4(10):35.  
*Chloridea peltigera* form *clarissima* Turati, 1924. Atti Soc. Ital. Sci. Nat. 63:101.  
*Heliothis peltigera* ab. *omicronata* Richardson, 1958. Entomologist. 91: 212.  
*Chloridea peltigera* form *obscura* Lempke, 1966. Tijdschr. Entomol. 109 (9):236.
- perigeoides* Moore—Jr. syn. of **nubiger**.
- phloxiphagus** (phloxiphaga) Grote & Robinson. North America (4, 9).  
*Heliothis phloxiphagus* Grote & Robinson, 1867. Trans. Amer. Entomol. Soc. 1:187.  
*Heliothis acesias* Felder & Rogenhofer, 1872. Reise Novara . . . Atlas, Inhalts-Verzeichniss Heterocera. P. 11, pl. 108, fig. 42.  
*Heliothis luteitinctus* Grote, 1875. Proc. Acad. Nat. Sci. Phila. P. 426.  
*Heliothis interjacens* Grote, 1880. Bull. Brooklyn Entomol. Soc. 3:30.  
*Heliothis phlogophagus* Grote, 1882. List N. Amer. Moths. P. 36.
- phlogophagus* Grote—Jr. syn. of **phloxiphagus**.
- posttriphaenus** (posttriphaena) (W. Rothschild). Madagascar (25) [25].  
*Chloridea posttriphaena* W. Rothschild, 1924. Ann. Mag. Nat. Hist. (9). 14:310.
- prasinus* (prasina) (Walker)—Jr. syn. of **virescens**.
- proruptus** (prorupta) Grote. Western USA (9).  
*Heliothis proruptus* Grote, 1873. Trans. Amer. Entomol. Soc. 4:294.  
*Melicleptria fimbria* Williams, 1905. Entomol. News. 16:237.  
*Melicleptria venusta* Hy. Edwards, 1875. Proc. Calif. Acad. Sci. 6:133.
- pulverosus* (pulverosa) Walker—Jr. syn. of **armiger**.
- punctiger** (punctigera) Wallengren. Australia (3, 12) [3, 12].  
*Heliothis punctigera* Wallengren, 1860. Wiener Entomol. Montaschr. 4: 171.  
*Chloridea marmada* Swinhoe, 1918. Ann. Mag. Nat. Hist. (9). 2:65.
- pyraloides* (Walker)—Jr. syn. of **virescens**.
- rhexiae* (J. E. Smith)—Jr. syn. of **virescens**.
- richinii** (Berio). Eritrea.  
*Chloridea richinii* Berio, 1939. Boll. Soc. Entomol. Ital. 71:164.
- rosario* (Barnes)—Jr. syn. of **toralis**.

**rubrescens** (Walker). Australia (3, 27) [3].

*Thalophila rubrescens* Walker, 1858. List of the specimens of lepidopterous insects in the collection of the British Museum. Pt. 15, p. 1681.

*Chloridea aresca* Turner, 1911. Ann. Queensland Mus. 10:60.

*Heliiothis hyperchroa* Turner, 1920. Trans. R. Soc. S. Aust. 44:131.

**rufus** (rufa) Warren. New Guinea (27).

*Chloridea rufa* Warren, 1926. In Seitz, Die Gross-Schmetterlinge der Erde. 11:308, pl. 27, row i.

*rufus* (rufa) (Warren)—Ab. of **armiger**.

*salmantinus* (salmantina) (Fernandez)—Form of **viriplaca**.

**scutuliger** (scutuligera) Guenée. Africa (8, 9).

*Heliiothis scutuligera* Guenée, 1852. In Boisduval & Guenée, Hist. Nat. Insectes, Sp. Gén. Lépid. 6(Noct. 2):180.

*Heliiothis errans* Walker, 1865. List of the specimens of lepidopterous insects in the collection of the British Museum. Pt. 33, p. 769.

**senegalensis** (Guenée). Senegal.

*Nonagria senegalensis* Guenée, 1852. In Boisduval & Guenée, Hist. Nat. Insectes, Sp. Gén. Lépid. 5(Noct. 1):110.

*separatus* (separata) Walker—Jr. syn. of **assulta**.

*septentrionalis* (Hy. Edwards)—Jr. syn. of **ononis**.

*septentrionalis* Hoffmeyer—Syn. of **maritimus warneckei**. Preoccupied.

*signatus* (signata) (Warren)—Jr. syn. of **hawaiiensis**.

*spectandus* (spectanda) Strecker—Jr. syn. of **virescens**.

*spergulariae* Lederer—Jr. syn. of **maritimus**.

*stramineus* (straminea) (Donovon)—Jr. syn. of **peltiger**.

**stombleri** Okumura & Bauer. Western USA (19) [19].

*Heliiothis stombleri* Okumura & Bauer, 1969. Bur. Entomol., Calif. Dept. Agric. Occ. Pap. No. 18, p. 2, figs. 1-12.

**sturmhoefeli** Draudt. Brazil (4).

*Heliiothis sturmhoefeli* Draudt, 1927. In Seitz, Die Gross-Schmetterlinge der Erde. 7:335, pl. 47, row m.

**subflexus** (subflexa) (Guenée). Western Hemisphere (17) [6].

*Aspila subflexa* Guenée, 1852. In Boisduval & Guenée, Hist. Nat. Insectes, Sp. Gén. Lépid. 6(Noct. 2):175.

*succineus* (succinea) Moore—Jr. syn. of **assulta**.

*temperatus* (temperata) Walker—Jr. syn. of **assulta**.

**tergeminus** (tergemina) (Felder & Rogenhofer). South America (5).

*Aspila tergemina* Felder & Rogenhofer, 1872. Reise Novara . . . Atlas, Inhalts-Verzeichniss Heterocera. P. 3, fig. 55.

**tertius** (tertia) Roepke. Java (20).

*Heliiothis tertia* Roepke, 1941[1945]. Zool. Meded. 23:14, pl. 2, fig. 7.

**tibetensis** (Hardwick) **n. comb.** Tibet (12) [12].

*Helicoverpa tibetensis* Hardwick, 1965. Mem. Entomol. Soc. Can. No. 40, p. 131, fig. 136.

**titicacae** (Hardwick) **n. comb.** Perú (12) [12].

*Helicoverpa titicacae* Hardwick, 1965. Mem. Entomol. Soc. Can. No. 40, p. 75, figs. 23-26, 101.

**toddi** (Hardwick). Africa & Madagascar (12) [12, 25].

*Helicoverpa toddi* Hardwick, 1965. Mem. Entomol. Soc. Can. No. 40, p. 128, figs. 133-135.

**toralis** (Grote). Southwestern USA.

*Botis toralis* Grote, 1881. Papilio. 1:178.

*Prothymia rosario* Barnes, 1904. Can. Entomol. 36:264.

*Pseudacontia unicolor* Walters, 1928. Proc. Entomol. Soc. Wash. 30: 138.

**translucens** (Felder & Rogenhofer). Himalayas (27).

*Heliocheilus translucens* Felder & Rogenhofer, 1872. Reise Novara . . .

Atlas, Inhalts-Verzeichniss Heterocera. P. 11, pl. 108, fig. 49.

*tristis* Stauder—Form of **viriplaca**.

**turbatus** (*turbata*) (Walker). Florida to Maryland (4).

*Poaphila? tubata* Walker, 1858. List of specimens of lepidopterous insects in the collection of the British Museum. Pt. 15, p. 1834.

*Perigea albidentina* Walker, 1865. *Ibidem*. Pt. 32, p. 680.

*Heliothis lupatus* Grote, 1875. Can. Entomol. 7:224.

*umbrosus* Grote—Jr. syn. of **zea**.

*unicolor* (Walters)—Jr. syn. of **toralis**.

*uniformis* Wallengren—Jr. syn. of **armiger**.

*venustus* (*venusta*) (Hy. Edwards)—Jr. syn. of **proruptus**.

**virescens** (F.). Western Hemisphere & Hawaii (4, 16, 17, 28) [6, 15, 28].

*Noctua virescens* Fabricius, 1777. Genera Insect. P. 282.

*Phalaena rhexiae* J. E. Smith, 1792. In Smith & Abbott, Ins. Georgia. 2:199, pl. 100.

*Xanthia prasina* Walker, 1856. List of specimens of lepidopterous insects in the collection of the British Museum. Pt. 10, p. 465.

*Xanthia pyraloides* Walker, 1856. *Ibidem*. Pt. 10, p. 466.

*Xanthia viridescens* Walker, 1856. *Ibidem*. Pt. 10, p. 465.

*Heliothis spectanda* Strecker, 1875. Lepid. Rhop. & Het. P. 122.

*viridescens* (Walker)—Jr. syn. of **virescens**.

**viriplaca viriplaca** (Hufnagel). Palearctic (5, 22, 26) [5, 12, 15].

*Phalaena viriplaca* Hufnagel, 1766. Berlin. Mag. 3(4):406.

*Noctua dipsacea* Linnaeus, 1767. Syst. Nat. (Edn. 12). 1:856.

*Heliothis adaucta* Butler, 1878. Ill. Het. Brit. Mus. 3:19, pl. 45, fig. 4.

*Chloridea salmantina* Fernandez, 1928. Relig. & Cultur. 2:216.